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ORIGINAL DEPARTMENT.

COMMUNICATIONS.

Water: its History, Characteristics, Hygienic, and Therapeutic Uses.

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(*Continued from page* 356.)

In Anatomy.—The auxiliary part borne by water in the formation of gastric juice, 1.72 per cent. only being solid matter, is as necessary as it is beautiful. A moderate amount of common salt, chloride of sodium, held in solution, forms hydro-chloric acid, which, uniting with lactid acid and pepsin, as allies of varied talents, forms a mysterious compound that can dissolve, for man in his omniferous capacity, any healthy product of the vegetable kingdom, and render nutritious animal food either of a non-nitrogenized or histogenitic character. In this semi-digested stage, the fluid fuel, aided by its mobile power, passes on to the chylopoietic viscera, where the process is carried on by the pancreas, duodenal glands, and useful follicles, till the thoracic duct distributes the liquid sustenance, with a curved beauty, to the greedy heart. Were it not then for the presence of water, whose representatives far exceed in numbers the other ingredients, a wasting marasmus would terminate life and render futile the use of any condiments.

Prof. Frerich's analysis of the pancreatic fluid of the ass, alone will serve to show the excess of water as an agent of vital importance:

Water,	986.40
Solids,	13.60
Fat,	0.26
Carried forward,	0.26
Brought forward,	0.26
Alcohol-extracts,	0.15
Water-extract, albuminous,	3.09
Alkaline, chlorides, phosphates, sulphates,	8.90
Carbonate and phosphate of lime and magnesia,	1.20
	1.000.00 — 13.60

If a ligature be placed around the pancreatic duct, according to the enlightened experience of M. Bernard, no oleaginous material will be digested, and the presence of any opalescent chyle cannot be found in the lacteals.

Though the water, in the gastric juice, is essentially useful, too free an indulgence in cooling drinks, and particularly ice, after dinner, is of serious import as delaying digestion. Dr. Beaumont, who has devoted so much time to this subject, found that, if only a gill of water, at 50° temperature, were introduced into the stomach after food had been eaten, it lowered the temperature some 30°, and required nearly half an hour to regain the normal heat which had been lost.

Dr. A. Combe expresses it as his opinion that the reason fluid diet is not preferred by dyspeptics, is because the watery portion is absorbed too freely, and that which is left is in "too-concentrated a state to excite the healthy action of the stomach."

Lehman, also, found that it required about twenty parts of gastric juice, in a healthy state, to produce the desired effect on one part of albumen.

All these facts go to prove that nature is the best director of affairs, and that the closer we pay attention to her wonderful operations the better will be our lot on earth—the more pleasing our sojourn amid perplexing fancies and false theories.

As another instance of the immense quantity of water in that all-important chemical agent, chyle, the analysis of Dr. G. O. Rees* of both

* Medical Gazette, Jan. 1, 1841.

the fluids obtained from the lacteals and lymphatic vessels of a donkey, seven hours after a good meal, will indicate the comparative ratio:

	Chyle.	Lymph.
Water,	90.237	96.536
Albuminous matter, (coagulable by heat,)	3.516	1.200
Fibrinous matter, (spontaneously coagulable,)	0.370	0.120
Animal extractive matter, soluble in water and alcohol,	0.332	0.240
Animal extractive matter, soluble in water only,	1.233	1.319
Fatty matter,	3.601	a trace.
Salts—alkaline chloride, sulphate and carbonate, with traces of alkaline phosphate, oxide of iron,	0.711	0.585
	1.000	1.000

Chevreul, by means of a series of careful experiments, ascertained that about two-thirds of the entire weight of the body could be evaporated "by complete desiccation."* By comparative measurements, it has been discovered that 75 per cent. of muscle is water;† while in the brain it is from 80 to 84 per cent.

In Prof. Allen Thomson's "Outlines of Physiology," there is much of importance that pertains to this subject. The following table not only indicates the amount of water in the fluids, but gives accurate measurement of the exact proportion in the "solid tissues:"

	Per centage of solid matter.	Specific gravity.
Bone,	80 to 90	1200 to 1600
Hair,	60	1300
Cuticle,	50	1200
Nerve,	43	1100
Skin,	30 to 40	1100
Fibrous texture,	30 to 35	1080 to 1090
Artery,	25 to 30	1070
Cartilage, Muscle, Glands,	23 to 28	1055 to 1060
Blood,	20 to 23	1050 to 1055
Wall of intestine,	18	1040 to 1050
Brain,	16 to 20	1030 to 1045
Fat,		942

That wonderful mobility of the human form, the distensibility of the skin and the rapidity of motion on the part of the superficial muscles, are, one and all, due to the presence of a vast amount of water.

M. Edwards maintains that, though the subject has been disputed for years, he entertains the belief that water is absorbed through the skin as well as exuded. Both Dr. Madden and M. Berthald, by means of baths, taken by themselves with the greatest care, ascertained that water was absorbed even through the epidermis. This must be the case; for, not unfrequently, by placing an emaciated victim of dysphagia in a bath of milk and water, life has been sustained for many hours, if not days, and that distressing lassitude resulting from thirst has vanished before its soothing influences. This thirst is due to a "disproportionately small quantity of water in the blood."*

Blood, the vital fluid of the human organization, is composed of such a vast variety of subtle agents and important ingredients that the following cannot fail to prove of interest to those who seek to learn the part sustained by water in its constitution. It is made up from the many analyses of Denis, Deanu, Simon, Nasse, Lehmann, Becquerel, Rodier, and Gavarret, and is esteemed by many the most complete.

In 1,000 parts of blood we find:

Water,		784.
Albumen,		70.
Fibrine,		2.2
Red corpuscles,		
Globuline,		123.5
Hæmatine,		7.5
Fatty matters:		
Cholosterine,	0.08	
Cerebrine,	0.4	
Seroline,	0.02	
Oleic and murgasic acids, Volatile and odorous fatty acids, Fat containing phosphorus,		1.3
Inorganic salts:		
Chloride of sodium,		3.6
Chloride of potassium,		0.36
Tribasic phosphate of soda,		0.2
Carbonate of soda,		0.84
Sulphate of soda,		0.28
Phosphates of lime and magnesia,		0.25
Oxyde and phosphate of iron,		0.5
Extractive matter, with salivary matter, urea, biliary coloring matter, gases and accidental substances,		5.47
		1000.

We find water in the arteries after death. When all else has left the tubes of existence, it still follows the veins unwilling to resign to

* Anatomie Général, par P. A. Béclard, 3 ième edit., 1851, p. 53.

† Carpenter's Physiology.

* Kirk and Paget's Physiology.

other elements its own accustomed round of duty.

Were it not for a free exudation through the multifarious pores of the skin, it would be impossible for man to venture, as has often been done by the enthusiastic learned, into ovens at a temperature of some 600°. A molten mass of iron may flow with impunity over the hand of the "founder" obedient to the laws of "spheroidal heat," thus shielding man by the moisture on the surface of the body, and becoming the safety valve, as it were, of what might bring about an instantaneous death, or subject the victim to prolonged, unceasing misery.

The tubules on the surface of the skin were evidently appreciated by the learned of many centuries gone by. Herodotus (117) on account of the neglect paid to cold baths in Rome, strongly advises swimming in the sea, by means of which all impurities may be washed from the body, external. Soramus (100) deemed the distressing symptoms, which arise from a prolonged attack of asthma, as intimately connected with a want of free circulation on the surface of the body, and accordingly suggests the use of cold water. Avicenna (1036) the "Prince of physicians," among the Arabs, does not altogether approve of the indiscriminate use of *cold* water, but premises much of his advice by stating that it depends essentially upon circumstances. While Ishakben Soleiman (940) agrees with Hippocrates in preferring, as a general use, spring-water modified by locality and influenced by surrounding agencies.

Not even in Salerno, where the students of medicine imbibed the knowledge of therapeutics, and at the time when Charlemagne indulged in the rare, regal accomplishment of swimming, could either example or precept induce the majority of the "οι πολλοι" to practice ablution of their persons. In some countries, the absence of perspiration, after great exercise, renders the inhabitant more susceptible to disease, and less able to enjoy that purity of a cleansed skin which is so conducive to perfect health. This is particularly the case in Mexico, where even undue exercise is not able to bring about transpiration sufficiently to free the kidneys from overwork. The 28 miles of pores seem, as it were, to remain indifferent to sanitary laws, and like the "discontented pendulum," forget their part.

In a most interesting and instructive paper, read before the New York Academy of Medicine, by the author, Dr. J. C. Dalton, on "the rapidity and extent of the physical and chemical changes of the body," the amount of air, fluids, &c., which are "absorbed, discharged, secreted and re-absorbed in the human body in 24 hours," may be seen in the following table, avoirdupois, in pounds and decimals.

Absorbed.		Discharged.	
Oxygen,	1.019	Carbonic acid,	1.535
Water,	4.275	Aqueous vapor,	0.445
Solid organic matter,	0.340	*Perspiration*,	1.965
Starch,	0.590	*Water of the Urine*,	2.020
Fat,	0.220	Urea and salts,	0.150
Salts,	0.056	Feces,	0.385
Total,	6.500	Total,	6.500

One cannot read the above without feeling amazed at the vast amount of water which forms the link, and assists most of the important actions of the organs of vital power.

Secreted and Re-absorbed.

	grs.	lbs.
Saliva,	20.164	2.880
Gastric juice,	98.000	14.000
Bile,	16.940	2.420
Pancreatic juice,	2.500	0.351
Lymph and chyle,	44.100	6.300
Total	25.	951.

In the disposition of the sub-arachnoid fluid who can deny the wonderful convenience and adaptability of this water-bed for that most sensitive of all organs, the brain? And coming in due course of time, the idea is worthy of contemplation, for water seems the common multiple of all the senses. Without it, the nerves of each locality refuse to act, and signals of distress or emotions of pleasure fail to be communicated to the sensorium. It is most gratifying, while treating of so fascinating a subject, to be able to testify to this one fact, interesting, curious, astonishing, namely, that the five senses are indebted to water for their action and delicate truthfulness to nature's requirements. We have seen that vision cannot exist without the aid of the three lenses to control the rays, act with convexity, thereby collecting what might be refracted and softening what is transmitted to the susceptible retina, acting like a chromatic telescope.* The *aqueous* humor assists in supplying a proper medium in which the contraction and expansion of the iris may take place, and thereby control the quantity of light to be admitted.

* Bell on the head. Bridgewater Treatise.

The vitreous humor, which is filled with "a watery, pellucid fluid," forms nearly four-fifths of the entire globe of the eye, and materially assists in keeping the crystalline lens at a proper distance from the retina. Wharton Jones, and Lawrence, seem fully to appreciate their utility; and Todd and Bowman devote considerable time to the discussion of their respective merits. Arnold enlarges on the subject, and Brücke is enamored of this beautiful provision of nature. Were it not, then, for a proper quantity of this transparent fluid, of what use would the retina become? How superfluous and unnecessary would be the membrana Jacobi, and unnoticed the nerve-fibres of the retina so much admired, so profoundly investigated by Valentin, Bidder, Krause, and Hannouer. Then, for all intents and purposes, the "yellow spot of Saemmering" might become green; the choroid be destitute of pigment, and the many useful and scientific experiments of Wheatstone become of no avail, or cease to have existence.

The nose, as Paley says with much truth, is indispensable for the suckling babe. Without its free means of inhalation, the imbibition of its mother's milk would be an impossibility. Not only does it act as a guard against what is offensive to the lungs, palate, and digestive apparatus, but is employed by man as a pleasing source of exquisite enjoyment. In the Eastern countries, more especially, do the inhabitants cultivate the sense of smell for the purpose of appreciating, through the nerves of sensitive organization, the most delicate gradations of tinted odors, and suggestive extracts from the flower-beds of nature. This has led to the beautiful simile—

"La beauté sans vertu est une fleur sans perfum."

The little fibres that furnish signals at the approach of matter wafted to them by the gentle zephyr's breeze, invisible to all else save the penetrating microscope, are furnished with a fluid, whose special seat of action is the schneiderean membrane, easiest of inflammation, soonest lost in sickness. Create, by cold, or other means, an increase of the mucus, and at once the sense of smell will vanish, while all the other faculties of man are engaged in active duty on the citadel of thought. Though "titillation" is the satisfactory result of copious snuff-taking, the termination of this sad and eminently wrong indulgence is a total loss of what had been bestowed at birth for useful purposes, not serious excess. Far be it from me to decry the comfort of a good "habana!"

Sublime tobacco! which from east to west
Cheers the tar's labor or the Turkman's rest;
Which on the Moslem's ottoman divides
His hours, and rivals opium and his brides;
Magnificent in Stamboul, but less grand,
Though not less loved in Wapping on the Strand;
Divine in hookas, glorious in a pipe,
When tipp'd with amber, mellow, rich, and ripe;
Like other charmers, wooing the caress
More dazzlingly when daring in full dress;
Yet thy true lovers more admire by far
Thy naked beauties—Give me a cigar! *

Many a profound scholar and practical deducer, many an astute mind entertains the same feelings.

With regard to the sense of smell, it will be necessary to enter more minutely into the distribution of the first pair of olfactory nerves. Susceptible as is the nose of any creature to odors of different character, it does not follow that pain is a consequence of contact with foreign bodies. Magendie, by experiment, found that, though the olfactory nerves of a dog were laid bare and pricked, the slightest evidence of pain could not be discovered. When we know that volatile bodies, by chemical action, materially affect the sense of smell, and that "cold, heat, itching, tickling, pain, and the sensation of tension and pressure in the nostrils," transmit to the mind of man the signals of danger, or the approach of what is gratifying, we look with eagerness for a clue to this mystery, and seek to ascertain even the least of those subtle agents, by means of which another sense is born, and freedom from so many ills may be enjoyed with a luxurious impunity. The odor of all fishy substances is contained in watery vapor, and what is of signal importance is, that all odors must be dissolved in the mucus of the nose before they can affect the nerves of smell, either by chemical action or as foreign substances. Unless they enter through the nostrils, nothing can be distinguished as to quality. This has been tried by Deschamps and Richerand, who endeavored to inject vapor, heavily impregnated with strong odor, into the antrum and frontal sinus of different patients, but with no signal success. The fiat, from the hands of eminent physiologists, and men of the mental calibre of a Cullerier or a Maignault, has gone forth and resolves itself into the following sententious and expressive fact, namely:

"When the Schneideran membrane is *dry*, the sense of smell is lost."

* The Island, Canto II.—*Byron.*

Though this sense is essentially the characteristic of animals as means of avoiding danger or pursuing their prey, man, nevertheless, by a studied cultivation of this delicate organ can substitute the nose for the ear, at the approach of friends, and, at times, determine the presence of any particular person, though devoid of sight, and especially if *dark* cloth be worn by the individual.

(*To be continued.*)

Osseous Tumors.

BY JAS. E. GARRETSON, M.D.,
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DISEASES OF THE MOUTH—*Continued.*

Enostitis, when associated with the pulp of teeth, (more correctly speaking, "Innodular calcification,") is about the most painful and most obscure of all affections of the human body.

I will illustrate it with a single case.

During the last session of the University, a student in the medical department applied to me, suffering with neuralgia, so severe as to have entirely incapacitated him for study for a period of some three weeks. During this time he had tried all the ordinary remedies which had suggested themselves, without finding the slightest relief. The pain varied between the tuberosity of the superior maxillary and the ear. The teeth, about the tuberosity, were as sound and healthy looking as any I have ever seen; there was, apparently, no local lesion, while, on the other hand, the physique of the gentleman was not at all of the neuralgic type. I was perfectly at sea with the case, until after a day or two there came to my mind an instance of innodular calcification of the dental pulp. I had once seen, at that time, the only case, where the patient had suffered in about a like manner. Now, I did not judge, of course, that of a certainty I had differentially discovered the source of trouble, but, still, I felt so well satisfied that I requested and obtained the consent of the patient to be allowed to drill into the pulp chamber of the wisdom tooth of the painful tuberosity. The result was the finding of the pulp filled with osseous granules—granules of osteo-dentine. The extraction of the tooth was followed by the immediate cessation of all pain, and the gentleman was able to go from my office direct to lectures.

I do not know how to tell my readers anything about the diagnosis of this innodular calcification of the dental pulp; it must be differential. I think that now I should be able, personally, always to recognize the condition, but I will be excused for saying that the ability to diagnose it, must result from an understanding of all the various modifications of dental diseases. A diagnosis can be only differential.

In the venereal or scorbutic exostosis, or inflammatory tumors, the features of the common disease become merged into the history of the cachexia, of which the tumor is only the representative. The growth is rapid, is painful, is influenced by slight causes, and is more or less amenable to constitutional treatment.

Scrofulous and scorbutic tumors differ from the venereal in being more loose and spongy in structure, and, in consequence, more apt to run into abscess, being possessed, as it were, of the elements for their own destruction.

In these forms of maxillary disease, the lesion is commonly heralded by deep-seated, dull pains, which precede by some time the visible enlargement of the part. After the tumefactive process once fairly sets in, it goes on, if uncombatted, until the parietes of the bone are completely disparted. Associated with this enlargement of the bone, is an unhealthy condition of the soft parts, the gums become pallid and are, of course, more or less attenuated, the paleness being the result of this attenuation.

As the disease advances, the centre of the tumer softens, while the character of the pains change, becoming sharp and throbbing. As pus forms, sinuses are created, and thus ulcerations occur on the face of the tumor.

The treatment of inflammatory tumors, of these and similar type, is to be conducted in consideration of their two-fold requirements. The systemic influences are to be corrected; while, locally, I think I am justified in suggesting that, as a rule, they will succumb to the treatment commonly directed against similar ulcerations of the soft parts. I have great confidence in the use of tents and stimulating injections.

There is a simple tumefaction of the maxilla which should not be mistaken for exostosis. It is to be distinguished by the greater rapidity of the swelling, and by the greater soreness attendant on it. In ordinary exostosis of the jaw bones, the solidity of the teeth are unaffected. In this tumefactive condition, they are quickly loosened. They are also loosened in the exostosis of syphilis and scurvy, and scrofula, but not so rapidly.

Cases illustrative of the difference between exostosis and simple swelling of the jaw.

Case 1.—A laborer, aged twenty-four, applied to M. Jourdain for professional attention. For some years he had suffered from the effects of diseased fangs, but the relief afforded by the spontaneous discharge of purulent matter allayed his fears. The tumor, however, increased; the extraction of the fangs was advised and performed, but the swelling continued. A mercurial course was recommended, to which the patient was unwilling to submit; he therefore sought my advice, and consented, after being convinced of the character of his disease, to the performance of the operation, which his case demands.

The operation done in this case, by Jourdain, is just such a one as any surgeon would do,—namely, chiseling away the mass and healing up the wound made.

Case 2.—A pensioner of the college of Louis the Great, had an alveolar abscess of the right lower jaw, from a carious molar. Relief was obtained after the discharge of the contained pus, but the recurrence of the disease rendered extraction advisable. From the extreme swelling of the bone, exostosis was suspected, and M. Misa, the family physician, called M. Jourdain, in consultation upon the case. I found the osseous tumor, says this surgeon, yielding, and pressure gave pain over the affected tooth. I therefore pronounced it to be simple infiltration, and not exostosis. A perfect cure was affected by the removal of the tooth.

Case 3.—A person applied to M. Jourdain, who had been for three years under fruitless treatment for supposed fistula near the curvature of the right coronoid process. The bone was an inch thick between its laminæ, as far as the first molar, presenting a considerable prominence externally, between the angle of the jaw and that tooth. The molar teeth had been removed. The bone yielded under pressure, giving evidence of a contained fluid, and the investing gum was hard and insensible. The patient was subject, especially in damp and chilly weather, to severe and painful swelling of the face, which confined him to the house, and often to his bed, for many days.

I advised, says M. Jourdain, and with the consent of the patient, performed the separation and removal not only of the gum, but of the whole tumor, embracing all the bone that was in any way softened. A large quantity of fluid, of the color of wine escaped. Dry dressings were applied, and in forty-eight hours removed. Three several applications of mercurial water removed the asperities of bone and fungous granulations. An aromatic and healing gargle was used at each dressing. Under this treatment, the wound progressed slowly and surely towards a cure, and in six months was well. There remained, however, a slight permanent enlargement of the bone, and a susceptibility to the influence of atmospheric changes.

In the monograph of Prof. Gross, (from which I previously quoted,) is related the following interesting case. The source of irritation it will be perceived was a supernumerary tooth.

"Miss C., aged twenty-one, of Frankfort, Kentucky, came under my observation in June, 1840, for an enlargement of the left upper jaw bone, which she first noticed about two years and a half previously; it occupied the alveolar process, was free from pain and discoloration, and produced no appreciable prominence on the corresponding side of the face until eighteen months ago. About six months after the tumor first attracted attention, the first bicuspis became loose, and was extracted by a dentist; the operation was followed by considerable hemorrhage, but this soon ceased, and the parts healed in a short time. After this, the tumor increased a little more rapidly, and by degrees the second bicuspid became loose; but, as it did not ache, it was not removed.

At the time of Miss C.'s visit, the tumor was about the volume of a large hickory nut, and seemed to be formed mainly at the expense of the outer surface of the alveolar process; it was hard and inelastic, devoid of pain or soreness, and unaccompanied by any disease of the gum. The general health was, and in fact, always had been excellent.

As the tumor was making steady, though slow progress, and was productive of some deformity of the lip, as well as of great mental disquietude. I determined at once to remove it. In describing the operation, Dr. G. says, "as the internal lamella of the bone was found perfectly sound, it was, of course, permitted to remain, especially when it was ascertained that the whole trouble had been caused by the presence of a tooth, apparently a cuspid, a little smaller than natural, but well formed, with the crown reversed, or directed upward toward the antrum of Highmore."

Before closing this present paper, I must direct attention to certain inflammatory tumors

of the peri-maxillary parts, with the existence of which it will not be amiss to be familiar, since it may serve, sometime, to guard against error, particularly as a diagnosis of swelling of the bone as it relates to necrosis, is concerned.

I will illustrate the lesion, as illustrations are generally more instructive, and certainly are more interesting than dry detail.

In 1858, a mother brought to me her little girl, suffering from an inflammatory swelling of all the left lower portion of the face. The condition had existed over two months, and the parts had become quite indurated. I at once inferred that the case was one so frequently met with of alveolar abscess. Close examination of the mouth, however, quickly undeceived me, the teeth were in perfect condition. The observation discovered to me, however, that the immediate peri-maxillary parts were swollen and turgid, not as in the abscess, but as found in specific ostitis. I directed sudden and sharp occlusion of the jaws, but no painful impression was made upon the bone. I questioned her as to the character of the pain, but it was neither that of ostitis or periostitis. I placed this child under antiphlogistic and sorbefacient treatment, when she immediately began to improve. The features of the case was similar, so far as appearances were concerned, to ostitis, but the rapidity of the case satisfied me that the trouble was alone in the soft parts.

Case 4.—(Chabert.) A soldier came to the hospital with a hard tumor extending from the right angle of the jaw along its base to the cartilage of the larynx. It had commenced five or six days before, with febrile excitement, for which he had been bled. It was indolent, and without redness; poultices were applied twice daily, and on the second day the tumor became elevated and inflamed, impeding in a measure the action of the throat. It was now lanced just below the middle of right jaw, and discharged a small quantity of blood and pus, was treated with dressings of dry lint, and a small pledget dipped in a healing solution was laid between the lips of the wounds. The patient was purged, and the hard tumor which continued after all discharge had ceased, was dissipated by the use of resinous plaster.

Case 5.—(Hilden.) A female applied to me for the relief of a tumor near the left articulation of the jaw. After purging and venesection, I destroyed the tumor with escharotics; and then as the motion of the jaw impeded the healing of the ulcer, I lessened the extent of this motion by placing a forked piece of wood between the teeth on either side, and directed the patient to live on broths and other liquid nourishment. By these means a cure was soon effected.

I just now recall a case occurring in the practice of Dr. C. of this city, which I had the pleasure of seeing with that gentleman in consultation, where a peri-maxillary tumor was so osseous in appearance and to the touch, as might well, I think, have deceived almost any one.

The case was that of a lady some twenty-five years of age in which the jaws had been locked for quite a number of weeks, while the angle of the jaw seemed converted into a solid tumor. A fistula opened about the middle of the cheek, and discharged constantly blood and pus. This trouble was not the result of any appreciable dental difficulty, and had it not yielded readily to the treatment adopted, I should have inferred the existence of a dental tumor—the cause of which I would have supposed to be a supernumerary tooth—or otherwise, I should have esteemed it necrosis, with a torturous sinus.

Instance upon instance of such extra osseous tumors are given by M. Jourdain, from the practice of his cotemporaries. Such tumors are generally easily distinguished from the osseous, but not unfrequently, so intimately are they associated with the direct coverings of the bone that their origin is rendered very obscure.

(*To be continued.*)

Report of Fifteen Cases of Suicidal Death by Cutting Carotid Arteries.

By JOHN SWINBURNE, M.D.,

Of Albany, N. Y.

The question is often asked, Why are the surroundings so diversified in suicides by cutting throats? In answering this question it will become necessary to examine the subject a little more in detail. In so doing I shall divide the mode and manner of death into those which involve:

1st. The arteries, (one or both.)

2d. Those which involve the veins and some minor arteries, with or without involving the trachea.

3d. I will analyze the causes of death of such

other circumstances as govern the flow of blood.

1*st. In Suicides by Cutting Carotids.*—The appearances are uniform so far as the amount of blood lost, while the direction of the spirting or flow of blood will be modified by the position of the body while the cutting is being done. When any large artery, such as a femoral and carotid, one or both is cut, death takes place *inevitably* from *hemorrhage.* This is the law of nature which applies invariably to the human subject, the exception is where the artery is secured by ligatures. *Fainting* does not *prevent* the flow of blood from continuing until life is extinct. Instance the invariable uniform amount of blood which flows after decapitation and in slaughtering of animals. I have collected about one hundred cases of suicides and attempted suicides by throat-cutting; in which a very small per centage of them have succeeded in cutting the carotids; many of them presented most frightful cuts and even a succession of cuts, which would seem to involve all the important vessels, but which (when examined by a careful surgeon or physician) were found not to involve the large arteries. Some of these were six and even eight inches in length, and still the wound did not prove fatal. These cuts are mostly in the line of the inferior maxilary, and some of them opening into the pharynx or trachea.

With reference to those which involve the carotids, I shall deem it of sufficient interest to the profession to give a concise and detailed description of such by themselves, inasmuch as there are no articles devoted to this subject. The few cases which might happen to have been subjects of medico legal inquiry, are not sufficient to elucidate the many points in this inquiry—while the others which only involve the veins and trachea, I will divide into

1st. Such as die from asphyxia induced by insufflation or running of blood into trachea.

2d. Such as die from syncope.

3d. Such as die from the excessive loss of blood.

4th. Such as die from introduction of air in the veins.

In all these forms of cutting, where veins only are involved, the blood *runs* out as observers say. It is this form of cutting which enables the suicide so to arrange the surroundings that there shall be no soiling of adjacent objects. *Instance* sitting on the side of the bed and leaning over the wash-dish; sitting on a privy seat and catching the blood in a spittoon; kneeling in a large chest or dry goods box, and leaning the head over and allowing the blood to flow into the dirt in the cellar. I find the greater number of suicides make more than one attempt—some make two, three, four, and even five efforts—and still sometimes fail to complete the work. I find one suicide taking two razors and a rope, fearing the first might fail. In fact I find few cases where there was not more that one attempt made at cutting, or in other words few make an incision sufficiently deep at the first attempt to sever the arteries or destroy life. It is *that* class of suicides, where the carotids are cut, to which I wish to to call especial attention.

In all these cases where the suicide was standing or sitting, and the room a small one, we find that the furniture, room, an clothes of patient, walls, and in some instances, the ceilings were covered with blood, while where the room was large, the jets of blood assumed a parabalon, and blooded the ground or floor for severel feet around the spot, leaving a pool of blood where the cutting was done. (See case 4.)

On the contrary, if the cutting is done while on the knees and elbows, the jet strikes the floor near the head, and little blood is found on the person of deceased. (See case No. .)

In *every* case of throat-cutting, whether arteries or veins were severed, the instrument used, whether razor or knife, was covered with blood, the same is true of the hand and wrist, while, if they were in the sitting or standing position, their clothes were saturated with blood.

In no case have I found a female cutting more than one carotid, while the large majority of suicides by throat-cutting were males.

In every instance where any observations were made, the wound was found dry a short time after the cutting, and there was found no oozing of fluid-blood from the cut vessels.

The eyes and mouth, so far as note was made of the fact, were open.

The tongue was never bitten or laterally chewed, so far as any note was made of the fact.

Convulsive movements of the limbs, the same as is observed in animals slaughtered, were not uniform, from the fact, *perhaps*, that many of these cases occurred in the standing position, and many of them stood until they had bled out.

In none of the cases can I find that the soft

parts (including trachea) were *positively* divided at one stroke of a butcher's knife or a razor, and in none can I find that the cervical bones had been cut into at all.

In no instance did the suicide lay on the back while the cutting was being done.

Sitting, standing, or kneeling was the universal position according to my observations.

In suicide by cutting of carotids, the external appearance and examinations by post mortem evidence, were entire exsanguination including the lungs; suicidal cuts in the line of the inferior maxillary and above the os hyoides, are more easily made, and inasmuch as they open into the fauces, are of necessity longer, deeper and more frightful in appearance, but no more destructive to life.

Case No. 1.—For the following very interesting cases I am indebted to Barent P. Staats, of this city. The subject, a male, aged forty, weighed one hundred and sixty pounds, quite muscular. The room eight by twelve, and ten feet high, contained bed, chairs, etc. While sitting on side of bed cut his throat with a razor, (am not positive with which hand the cutting was done) slid off and fell upon the floor. The cut was in a curvilinear direction, and in a line with inferior maxillary and above the thyroid cartilage, cutting more on the right than on the left side; one carotid cut, pharynx opened, wound about five inches. As he lay on the floor, the razor, which was covered with blood, fell from his hand; the ceiling, and sides of the room, the bed and body clothes, face and hands were covered with blood. The floor contained a large coagelum of blood in which he lay. He could not have lost less than sixteen to twenty-four pounds of blood; bound up the wound some two hours afterwards, and found no blood oozing from the vessels; in fact the cut was dry, and the body was virtually bled out. The face, body, and lips were very pallid, ashy, and quite exsanguined. He had much convulsive action of inferior extremities. I saw him before he was dead.

Case 2.—For the following exceedingly interesting case, I am indebted to D. S. Young, M.D., of Cincinnati, Ohio. The subject, a German male, aged forty; weight, one hundred and sixty; muscular; with a butcher's knife, sixteen inches long and much niched, cut, haggled, and mutilated his throat (while standing) very much, making several distinct efforts, cutting off all the soft parts, including both carotids, both jugulars, trachea, esophagus, etc., down to the bone. He was standing when the cutting was done, head thrown back, and retained the knife within the grasp until he fell, which was forward and partly on his face. The room was a cellar, attached to a pork-packing establishment, about ten by twelve, by seven feet high. The blood spirted all over the ceiling and sides of the room. His clothes were saturated with blood; his head, face, hands, and knife were covered with blood. The body seemed entirely exsanguined; face, lips, and body were as white as alabaster. One hour after, no blood oozing from the cut vessels; the cut vessels seemed dry. From the quantity of clotted blood on the floor, walls, and person, I judged that there was not less than sixteen to twenty pounds of blood lost.

Case 3.—The following case is one of especial interest, from the amount of blood lost and the distance that he walked after the cutting was done. It occurred under the observation of Dr. Willard, of Berne, Albany county, New York. The subject, a male, aged forty, weight one hundred and fifty pounds, full habits. He went to a garret with a rope and razor; with the razor he cut his throat, while standing about four feet from garret stairs. From this point, he descended two pairs of stairs, walked the whole length of lower hall, (about thirty feet,) out back door; walked outside three or four steps, leaned against side of house for a moment, and finally sagged down, like one in a faint. Here was found a large pool of blood; and when taken up he had bled out. After some little time, body was carried into the hall, when it was not even emitting blood enough to stain the carpets. The first dash of blood struck the side of the halls, stairs, and stairway; the stairs and sides, and the whole track from the garret to where the body lay was spattered and thoroughly bedaubed with blood; in fact, the halls and stairs were drenched with blood; the blood running like a penstock, by jerks. His wife stood in front door and saw him coming down the second flight of stairs. Her screams brought others to her assistance. Front of body, hands, and cloths were covered with blood, also the razor, (which was retained in the grasp of right hand until he fell at the back door,) hands and face were covered with blood.

The cut was just below the thyroid cartilage, and severing a piece of the same, was large,

five to six inches, commencing on left side of neck, back of sterno-cleido mastoid muscle, cutting through all the soft tissues of that side, including trachea; esophagus cut partly through; the carotids on right side not cut entirely off, on left side entirely cut off; the vertebræ not cut. I saw the body soon after the accident, and sewed up the wound some four hours after. There was no blood oozing from the wounded vessels; it hardly soiled the fingers, but left a fleshy smell on them. The amount of blood, of course, is speculative; the quantity was very large, more than I supposed was contained in any person.

Case 4.—For a very full and concise history of the following very interesting case, I am indebted to Dr. Walter Boothe, of Boonville, Oneida county, New York, of which the following is an abstract:—

D. S., aged sixty, weight one hundred and sixty, of nervo-sanguine temperament; for some time he had been somewhat despondent and gloomy. He was standing near the railroad track, and just as the train passed out of the depot, he drew a razor from his pocket, threw back his head, and made an incision, severing all the superficial structures and jugular veins. The blood flowed moderately; seeing persons approaching, he made a second desperate cut, and so exactly in the course of the first one, that no appearance of two incisions was visible on examination. The incision commenced on the left side, two inches below the lobe of the left ear, extending across the neck, in a curvilinear direction, above the thyroid cartilage, opening into the pharynx, cutting all the soft tissues in front of the vertebræ, but not cutting into its covering, and terminating one and a half inches below the lobe of the right ear. The right carotid was entirely severed; the left one, nearly. The blood spirted laterally and in front four to five feet, in a parabolic stream, covering the clothes in front of his person very much with blood, as was also his right hand and the razor covered with blood. Not more than ten minutes supervened from the first incision to the time of death, which took place with only slight tremors. The eyes and mouth were open; tongue not bitten. Since the receipt of the doctor's communication, I received information from a reliable source that the loss of blood was very large, sixteen to twenty pounds, and that the blood flew in jets for at least eight feet laterally and in front, and at an angle of forty-five degrees from the body, covering the board walk and ground with blood; also a large pool of blood where he stood. Not less than sixteen to twenty pounds of blood was lost, judging from the appearances and clots on the ground.

It will be seen that the greater number stand while the cutting is being done. In the fifteen reported cases of carotid cutting, nine were standing, three kneeling, and three sitting on side of bed. This is about the rates of positions in the hundred cases, while these three are the only positions in which any attempt has been made at cutting. The per centage of those who cut the carotids to all who attempt self-destruction by this mode, is about one in about twenty to thirty.

Case 5.—For the following case, I am indebted to Dr. P. P. Staats, of this city. The subject, a male, aged forty, rather corpulent, weight one hundred and fifty, cut his throat (while standing) with a razor; he soon fell on his back. The cutting was done with right hand and above the thyroid cartilage, cutting through carotid, trachea, and all the soft structures, but not involving the vertebræ.

The blood spirted six to eight feet from where he stood, leaving a large pool of blood on the floor. The amount of blood, of course, was very large; I think twelve to sixteen pounds, from the fact that the body was left exsanguined, and also the condition of the floor and his clothes, which were saturated with blood.

Case 6.—Dr. C. P. Staats.—T. O., aged 25, weight 140 lbs., muscular.

Position.—Cutting done while kneeling, and his face imbedded, and fell down on face; this was in a straw loft, and straw about five feet in thickness; cutting done with right hand, which, with the right arm were covered with blood.

Wound.—commenced at angle of left jaw, and made three distinct cuts: first, one cut was in the carotidian direction of chin at five inches, mostly on left side; second, below mostly on left side, and four inches just below the first, and mostly a skin cut; third cut commencing at the angle of the first cut, and extending obliquely downward across the thyroid cartilage, (but not into it,) severing the carotid on the left side.

Blood.—Chin, neck, and breast were covered with blood, right hand, (inside and out,) wrist and sleeve, (five inches from hand,) were covered with clotted blood—razor left in wound,

and dropped out when he was lifted up. The blood stained this five feet of straw, also two floors and two ceilings and floors; and on this lower floor, at least one pint of blood was found. I judged there to have been at least three gallons of blood lost, from the condition of the stairs, floor, ceilings, &c.

Face was blueish white, lips like marble, tongue contracted and shrivelled, and not bruised or bitten.

Eyes and mouth open.—Sewed wound about an hour after cut; it was covered with dry clotted blood, and no oozing divided vessels.

The straw which was close about his neck prevented the blood from spirting. Breast and clothes on front of body were saturated with blood to the inferior portion of sternum, and his shirt rolled down some distance below his neck.

Face looked ghastly, and not like one asleep. The razor was niched.

Case 7.—For the following case I am indebted to Dr. Burton, of Troy, N. Y. The subject, a female, aged 30, weight 120. She was standing in front of a mantle looking-glass, when she cut her throat with a razor, and soon fell on her left side.

The cut was made by the right hand, and cut commenced on the left side, cutting the sterno-cleido mastoid muscle together with nearly all the soft parts of the left side of the neck, also the carotid, and through the trachea below thyroid cartilage; the blood spirted out in jets over mantle, glass, etc., saturating the same; all the clothes on the left side of the body were saturated with blood, and bloodying neck, breast, hand, and razor, most thoroughly, and leaving a large mass of blood on the floor; at least 12 lbs. of blood was lost; mouth and eyes open, tongue not bitten; when the wound was sewed up, the edges were dry, and of course no oozing of blood from the vessels cut; an examination, post-mortem, revealed entire emptiness of the circulating system.

Case 8.—For the following interesting case, I am indebted to Dr. Thorn, of the Marshall Infirmary, Troy, N. Y. The subject, a male, æt. 50, full habit of body. The room was about 12 by 20 feet, and contained a bed, chairs, and looking glass, near which he was standing, when the cutting was done; from this position he staggered about nine feet, and fell on the bed. The cut was mostly on the left side, commencing just behind the angle of the jaw, cutting on a line with it to and through trachea, and severing the carotid. The instrument, a razor, was held in the right hand, and was not retained in the grasp. The blood jetted several feet, and struck the wall, which was spattered with blood, while the bed where body lay, and body clothes were saturated with blood—the right hand, arm, face, and razor were covered with blood; the quantity of blood on the floor, walls, bed, furniture, and body clothes, of course, was speculative, but was very large, as the body was exsanguined, and the edges of the wound dry, no oozing of blood from the cut vessels.

Case 9.—For the following exceedingly interesting case, I am indebted to Dr. Benjamin E. Bushnell, of Little Falls, Herkimer Co., N. Y. Suicide, a male, æt. 55, weigbt 150, lean, and but little muscle.

Position.—When first seen, he was on his knees and resting on his left elbow, head near the floor; he had then only lost about one-half pint of blood; when I arrived, he lay on his left side, with the left side of his head in a pool of blood, and gasped once or twice. I found that he had made two cuts, one across the thyroid cartilage, very slight; the second commenced under the left ear, and extended obliquely downwards and forwards across the thyroid cartilage, cutting jugular vein, carotid artery, but not the trachea. The right hand was covered with blood, little on the clothing, as from position of the body the blood poured directly on the floor; two razors were found near by, one directly in front, and a little to the right, covered with blood, the other not bloody. With regard to the quantity of blood lost, it is difficult to say how much, as it was a loose floor, and the blood ran freely through it, but from appearances, should say there was a large amount lost. He evidently died of hemorrhage. Upon examination of the abdominal cavity, the blood-vessels were empty. The examination of the wound was made a few minutes after death, and there was very little oozing from its vessels at the time.

S. N. Sherman, M. D., of Ogdensburgh, N. Y., now member of Congress and Surgeon of the Thirty-Fourth Regiment of New York State volunteers, sends me the report of the five following cases, which I have read with interest.

Case 1.—Male, age forty-five, weight one hundred and seventy pounds; while standing

with head turned to the right, made two distinct efforts to cut his throat with a butcher's knife.

First cut extending through the skin, cellular tissue from the angle of the left inferior maxillary downwards across the neck, not so far on right side as left.

Second cut was on the right side, between thyro cricoid cartilage, and made by a back hand movement, severing the trachea, both carotids, and most of the soft parts of the right lateral position of the neck, and extending about six inches in length, and nearly square across the neck. The blood spirted all over the ceiling, (9 feet high,) and about eight feet in every direction, covering his hands, face, etc., completely, and saturating the clothing on the body, loosing not less than sixteen to twenty-four lbs. of blood. The knife, (sixteen inches in length,) lay on the floor, and covered with blood. The face, lips, etc., (after being washed,) were ashy pale. He remained standing for some seconds after the cutting, then fell forward on his face, when active, convulsive efforts supervened, lasting some seconds. The tongue was not bitten; sewed up wound within an hour, and there was not enough mosture to soil a spunge, no blood oozing from divided vessels.

Case 2.—A female, aged thirty-five, weight one hundred and ten pounds; was sitting on side of bed; cut throat, commencing posterior to the mastoid muscles of left side, just below the lower lobe of ear, extending in a curvilinear direction, on a line with the lower jaw, terminating one and a half inches lower on the right than on the left side, severing the left carotid, and opening into the fauces above the thyroid cartilage, but not the cervical bones. She slipped off the edge of the bed to the floor, and lay partly on her face, which rested across the right arm. The blood spirted about ten feet in every direction, saturating her clothes, and the carpet on the floor was saturated with blood; a large pool of clotted blood, in which she lay immersed, not less than sixteen to twenty-four lbs.; her hands, face, and razor, were covered with blood. Razor had evidently slipped out of the right hand as she lay on the floor, and the eyes and mouth were open, and tongue not bitten. The clothes of her person were somewhat disarranged, as if convulsions had supervened. No blood oozing from divided vessels, nor was there any blood moisture at the wound one hour after the cut was sewed up.

Case 3.— Male, aged thirty-six, weight one hundred and eighty; while standing in front of looking-glass, (in a room about ten by ten, and eight feet ceiling,) with his head thrown backwards, cut his throat with a razor. Cut commenced on left side, extending across the neck in a line with the chin, cutting both carotids into fauces, etc. The blood spirted over the glass, ceiling, sides of the room, table, chair, face, head and hands, (right and left.) He ran round the room, leaving prints of bloody fingers on the sides of room, and finally fell on his face, where there was a pool of blood. His clothes, also, were saturated with blood; the entire loss of blood could not have been less than sixteen to twenty-four lbs. The razor, handle, and blade, were covered with blood, and lay on the table under the looking-glass; mouth and eyes open, and no oozing of blood from cut surface, which was dry. He had convulsive movements.

Cases 4 *and* 5 were males, laboring under delirium tremens. The cuts were large, severing the carotids higher on the left than on the right side. He did not see them until they were in the dissecting room, and hence could only say that their bodies were entirely exsanguined, and not blood enough oozing from the wounds to soil a pocket handkerchief; lips were completely blanched, while no blood flowed on dissection; tongue not bitten.

Case 13.—Dr. J. P. Boyd, of Albany, New York, communicates the following interesting case:

Male, aged forty, weight one hundred and forty pounds, spare. Cut throat, (supposed sitting on edge of bed,) severing left carotid, windpipe and nearly all soft parts on left side of neck; when found, was on his back in bed; clothes much disturbed; wound gaping; mouth open; room about seven by eight feet, about eighteen feet high, and contained bed, chairs, etc. Sides of room seven to eight feet from the floor were covered with blood, spirted from the vessels; bed, bedding, body, and clothing were saturated with blood; head, face, hands, etc., were covered with blood; did not see instrument; no blood oozing from wound or cut vessels; they were dry. It seemed to have bled out. There was evidently a large flow of blood, and death was evidently attributable to that cause.

Case 14.—I am indebted to Dr. Duane, of Schenectady, for the following very interesting

suicide, the extent of the cut makes it especially so. The subject, a male, age forty-five, weight one hundred and eighty. He was standing, when the cutting was done, and soon fell on a straw bed, (which was on the floor,) with the head resting on a feather bed, rolled up, and laid on a straw tick. The cut below the thyroid cartilage was long, severing both carotids, trachea, etc., extending farther to the left, than the right side, cutting only to the mastoid muscles of right side, while on the left it was severed, (no bones cut.) He had two razors; one in his pocket, and the other retained in the grasp of the right hand, and covered with blood, as also the right hand and wrist.

It was an ordinary sized bedroom; bed on the floor. The blood spirted all over the walls, floor, bed, body, clothing, etc. There could not have been less than eighteen to twenty-four lbs. of blood lost, judging from the condition of the apartments.

The mouth was open; the chin dropped.

Case 15.—Dr. Elwood, of Schenectady, sends me the following case:—Subject, male, age about thirty-six, weight about one hundred and fifty; cut his throat while on his knees and elbow, and fell forward on his face. Cutting done with right hand, and was mostly on the left side: commenced two and a half inches back of carotid, severing it completely; cut above the the thyroid cartilage. The bedroom about fourteen by fourteen. The floor received most of the blood, owing to the position of the body; still the body, also, the right hand, razor, and face, (ghastly and bloody,) were covered with blood. The amount of blood lost was at least sixteen lbs., (two galls.,) judging from the condition of the room. Eyes and mouth open.

Pus-Cells in the Atmosphere.

BY GERARD ARINK, M.D.,

Rochester, N. Y.

During the existence of an epidemic, the "conjunctiva blennorrhoïca," which occurred in the Foundling Hospital at Repy, a mile and a half from Prague, Dr. Eiseld had an opportunity of proving, in his own experience, that infection can be produced in other ways than by direct contact with the diseased party.

The attendance upon one hundred and thirty-one children, brought from different institutions to the above-mentioned city, was committed to him. He visited them twice a day, taking all possible precaution to prevent contagion, both in his own case, and in that of his patients; the cleansing and washing of the childrens' eyes was entirely given over to the nurses, etc., yet he soon became conscious of a pricking, burning sensation in his own eyes. The caruncli on both sides were red, and the whole conjunctiva palpebrarum was swollen; the plica semilunaris of the right side became livid, and so strongly œdematous that the motions of the bulbus became difficult; added to which, was a great discharge of mucous substances, causing the eyelids in the morning to be glued together. Here there was evidently a case of real infection produced without any personal contact. Many of the nurses also experienced the same symptoms without any explained or understood cause.

Dr. Eiseld obtained an instrument similar to the aëroscope of Pouchet, and experimented with it in a sick room, where thirty-three boys affected with the disease were lodged. He placed it between two beds, where a stream of air flowed, which air in its passage through the instrument was made to flow over a glycerine-covered piece of glass, to which any substances contained in the atmosphere, would be sure to adhere. This being accomplished, the piece of glass was withdrawn, and placed under the microscope, when pus-cells were easily discovered. This experiment was made at ten o'clock in the morning; and after the first stream of air had passed the aëroscope, the pus-cells, as stated, were found.

By this simple operation, Dr. Eiseld found a ready and very natural explanation of the cause of those cases of disease which had occurred, where there had been no touching of the patient, or contact with any blennorhoid secretion; the infection was caused entirely by contact with the air-suspended pus-cells. The editor of the Wochenblatt der Zeitschr. der Aerzte, in Wien, (No. 13,) out of which the above communication is taken, calls attention to the great results which may ensue from such investigations to pathology; especially in regard to the hitherto mysterious nature of all contagious diseases. With the design of obtaining more light on this important subject, many members of the Gesellsch. der Aerzte, have formed themselves into a society to prosecute, and publish the result of still farther investigations. We hail such a movement with delight. By the knowledge gained through

this simple experiment, we can easily account for the contagion of scarlatina, diphtheria, small-pox, typhus fever, measles, influenza, and even ordinary, so-called "cold in the head"—in all which cases, pus-cells, or particles secreted from mucous, pass off from diseased subjects into the atmosphere, and fastening on the healthy subject, or inhaled by him, produce in him the like disease. Hence we can understand, how readily a healthy person may contract consumption, or disease of the lungs, from sleeping with another thus diseased. These pus-cells in passing off from the sick lungs, are inhaled, received into, and, as it were, innoculate the healthy lungs, and thus disease is soon produced.

The beautiful Countess of F—— was the admiration of all Paris. She trod the airy walks of fashion, flattered, courted, and caressed—everything around her was superb, magnificent. Her house, equipages, dress, and jewels, were renowned for their costliness and splendor. All the world paid homage to her, she was the bright particular star in gay Parisian circles.

As she was quitting the opera one night, and about to step into her carriage, escorted by numbers, any one of whom would have been proud to do her slightest bidding, she felt the gorgeous diamond bracelet which she wore, unclasp, and fall from her arm, the next moment she beheld it glittering in the light of the many lamps, upon the pavement beneath; to stoop and re-possess it was the work of an instant—but what a fatal instant was that for her! for as she stooped, one of the horses attached to a carriage immediately in the rear of that of the Countess, bent his head towards that beautiful face—she even felt a moisture on her brow as she arose, gathered from his nostrils; alas! it was as a death-kiss—the beautiful Countess of F—— went home to die—in a few days she was a corpse. The horse which she thus came in contact with was diseased with the glanders, and the breath which he exhaled upon that fair face was doubtless charged with noxious pus-cells, which, received into her system, worked their poisonous effects in the fatal manner described.

If it be indeed a fact, as science would seem to teach, that contagion is thus disseminated by means of pus-cells in the atmosphere, it is also a precious fact that science gives us the means to destroy this deadly contagion. We have seen, and can testify to the blessed effects of fumigation by hypochloris calcius, CaO, Cl_2O, as a disinfectant, as well as the use internally and externally of the solutio hypochloris natricé. Most destructive to the existence of pus-cells in the atmosphere, we know these remedies must be, which is the reason, obviously, of their being such powerful disinfectants. We have seen frequently their excellent effects in cases of severe cholera.

Medical Societies.

TRANSACTIONS OF THE BROOKLYN MEDICO-CHIRURGICAL SOCIETY.

Regular Meeting of June 25, 1861.

Daniel Ayres, M.D., President.

PROF. LEWIS SAYRE'S

Case of Anchylosis of Left Hip-joint, the supposed result of morbus coxarius rectangular deformity; division of contracted muscles; brisément forcé; perfect relief.

H. F. Rowland, the patient in this case, is twenty-eight years old, and of pretty good constitution, which is the more surprising, when the amount of suffering and vicissitudes which he has passed through, within comparatively a few years, is duly considered. Aside from his local difficulty, he has successively suffered from dysentery, panama, typhoid, and yellow fever, and received his share of calomel, bloodletting, etc. At the age of eleven years he sustained an injury of his left hip, by wrestling, which lamed him for a month, but left him well. In the month of April, 1854, the present trouble was brought on by sleeping on damp ground in California. From inconvenience it grew gradually to severe pain in and about the left hip, and after three months he had to resort to crutches. The physicians he consulted, pronounced it rheumatism, prescribed sulphur, bi-chromate of potash and applied the actual cautery upon the left hip, and blistering. The pains, however, steadily advanced, and became so troublesome as to deprive him for months of rest and appetite. A large issue, kept open for five months, at the articulation had no better result than the former remedies, and thus he returned to New York, in a most painful and helpless condition. He visited different places, and received the attention of various medical practitioners, who all agreed upon the disease being in the left hip-joint. At last the neighborhood of that articulation became tumefied, swelled, and was eventually lanced, when about two quarts of matter followed by temporary relief, were discharged. Until the year 1856, from time to time, new fistulous openings formed, discharging profusely and eliminating small shells of bone. The muscles became contracted, the left thigh drawn up almost to

a right angle, and the articulation perfectly immovable. Hectic fever set in, reducing his body to a living skeleton; he was, moreover, troubled with cough, and with so persistent a constipation of his bowels that fifteen pills of Holloway, scarcely sufficed to procure relief.

In the following year the patient commenced the systematic treatment with cold water, from which he had derived great benefit. In fact the improvement commenced within a month. The heat in his hip diminished, the fistulous openings cleansed, their discharge became less, and in November of the same year he resumed walking. In 1858 the patient went South, was attacked with bilious remittent fever, and, on recovery, his fistulous openings closed permanently.

By taking good care of himself, and adhering to a generous diet, he gradually grew comparatively strong and robust, and has ever since remained so. This is substantially the history, communicated by the patient himself.

Dr. Sayre took the patient under his charge on the first of May last. The instituted clinical examination elicited the following: Multiple cicatrices about the left hip and along the thigh, drawn and fastened to the femur. The extremity greatly attenuated. The thigh flexed almost to a right angle upon the hip, and perfectly immovable. By moving the affected extremity, the pelvis follows. The flexor and adductor muscles firmly contracted, and of exceedingly firm structure.

When the patient assumes the erect posture, his foot is elevated thirteen inches from the floor. By means of a high boot he reaches the ground by bending the spine forward in its lumbar position. The pelvis is more inclined, but not tilted upward.

The awkward position of the patient, when standing or walking, could be realized from the diagrams exhibited by the doctor, (fig. 1 and 2.)

Fig. 1.

Fig. 2.

As to the diagnosis of the case, Dr. Sayre had at first been undecided whether it had been simple rheumatic periostitis of the femur, or whether the joint had subsequently become involved and complicated the case. The evidences of the former were conclusive. But the anchylosis of the latter had necessarily perplexed him. He was fully aware that periositis of the upper half of the femur was apt to simulate some symptoms of hip disease, but would rarely produce the deformity so characteristic of this complaint, unless the joint itself had actually become implicated. That this was often the case the speaker had no doubt, and it was comprehensible from the fact, that the external layer of the articular capsule, was but a continuation of the periosteum. In the present case, the deformity widely differed from that of hip disease, and he had been inclined toward simple periositis, but for the existing anchylosis of the joint. In canvassing the various forms of anchylosis, Dr. Sayre had found that it might be simply fibrous adhesion, or partial or complete bony union of the articular faces, compatible only with a previous affection of the joint itself. On the other hand the joint might be fixed and rendered immovable by osteophytes entirely extraneous to the joint, and otherwise perfectly intact. This form of anchylosis might be the result of periostitis only. He had decidedly been inclined to take this view of the case, but the trial alone could decide the correctness of his conjecture, and the patient was willing to submit. On the 8th of May, and in the presence of Drs. Barnatzky, Cleveland, and other professional gentlemen, he had subcutaneously divided the entire group of flexor and abductor muscles, the patient being, of course, under the full influence of chloroform.

The Dr. had, thereupon, repeatedly tested the strength of the articular impediment, and signally failed by gentle, gradual, and steady extention. Giving, however, the leg a powerful and sudden motion, the osteophytes gave way, when the extremity could at once be extended and rotated without further restraint. A rough grating was only then noticed when the leg was flexed, and the fragments of the fractured osteophytes again brought in contact.

Thus the diagnosis of previous simple periostitis, was placed beyond doubt. No reaction followed this rather violent proceeding. For a short time the limb was kept extended by pulley and weight, afterwards by the hip-splint, with which the patient already, in the fourth week, could take open air exercise, and now, about two months after the operation, he walked, supported only by a cane. He had no pain whatsoever, the motions of the joint, although quite free within the former position, were yet weak, owing to the previous myotomy. The extremity had, within half an inch, acquired its full length, and Dr. Sayre thought this deficiency might, eventually, become corrected by the division of the tendo achillis, the gastrocnemio soleus muscle being evidently tense.

Dr. Sayre concluded by stating that the *briesement forcé* of the hip-joint was, in Europe, no novel operation, having been repeatedly performed by Buchring, Langenbeck, Ross, Levissier and others, yet he was not aware that any surgeon had preceded him in the same on the American continent.

As to the present state of the patient vide fig. 3.

Fig. 3.

EDITORIAL DEPARTMENT.

PERISCOPE.

Weekly Summary of Medical Journalism.

By O. C. Gibbs, M.D.,
Of Frewsburg, N. Y.

TREATMENT OF ASPHYXIA.

In the *Berkshire Medical Journal* for April, (which, by the way, has but just reached us, and where are the subsequent numbers?) Prof. W. H. Thayer has an article upon the treatment of asphyxia, the main point in which we consider worthy of redevelopment here.

In cases of suspended respiration, from whatever cause, it is usually directed that the heat of the body be kept up by artificial means during the period of the asphyxia; after the respiration is established, it is usually supposed that the requisite warmth of the body will be provided for by the natural forces. Prof. Thayer takes issue on this point, and says the body should be kept considerably *below* the natural temperature *until* respiration is restored or established; then the heat of the body should be provided for—in other words, the enfeebled heat-developing forces should be aided by warm clothing, etc. In proof of his positions, he refers to experiments by Buffon and Le Gallois, also by Sir Astley Cooper, in which it was found that animals died much sooner in water at or above blood heat, than in water thirty or more degrees below it. Dr. Thayer quotes also two or three authorities in support of his views. We make one or two short extracts:

"The surface of the body should be kept cool until respiration is re-established, in order that as little as possible of the oxygen that remains in the system may be consumed."—*Braithwaite's Retrospect, Part V., p.* 48.

"To *elevate* the temperature, or to accelerate the circulation, without having first secured the return of respiration is therefore not to save, but, in reality, to destroy life."—*Ibid, Part XXXIII., p.* 88.

We believe Dr. Thayer's views to be correct, and we have certainly put them, or, rather, similar opinions, in practice in certain cases, for several years past. In the first three or four years of our practice we were in the habit of placing all still-born children, that gave any promise of restoration, in a warm bath, and we do not now remember having seen one such restored, that was not actually breathing more or less distinctly at the time. Since those first years our practice has been different. If there be pulsation in the cord, we do not separate the child from the mother until respiration is established or the pulsation ceases. Artificial respiration is attempted by the very easy method of elevation and depression of the shoulders. At each elevation, (we mean carrying the shoulders towards the head,) a dash of cold water is poured upon the chest or head. The elevation and depression are made with regularity, and at about the usual intervals of natural respiration. The cold dash is equally regular, and is simultaneous with the elevation movement. If there is no pulsation in the cord, we give the child a few dashes with cold water, and if the respiratory effort is not commenced at once, we separate the child, place it upon a table, and commence artificial respiration, either as above, or by Marshall Hall's method, accompanied still with the cold dash as before. As soon as breathing is established, a well-warmed flannel blanket is in readiness to receive the child, and we consider a few drops of warm sling no detriment at this time, and before commencing with the washing and dressing, which is a severe and fatiguing ordeal for a feeble child. By such means we are confident we have seen a goodly number of children saved, that, by the warm bath, would have been surely lost. We have had the happiness of seeing the maternal eye—wet with weeping—kindle with joy and gratitude at the sound of the first faint gaspings and still feebler cry. When the mother has given up in despair, supposing that she has suffered all the pains of parturition and is still childless, and

has taken a sorrowing look at the dead product of her labor, it is no mean joy to be able to make her suddenly happy by handing her a living child—blood of her blood—that she can regard in no other light than as a resurrection from the dead.

A case in point occurred to us only last week. After a rather tedious labor, during the last six hours of which we were in attendance, a male child was born. There was no signs of life, and we did not remember having noticed the least evidence of motion during any period of the labor. The cord was wound around the neck, also around the leg. Liberating the child from these entanglements, there was still found to be no signs of pulsation—in fact the cord was as flacid as though it never had carried blood. The child gave no unnatural appearances at birth, and we commenced with our efforts as hinted above. Gradually, slowly, and almost imperceptibly, the surface of the body grew faintly dark, darker, and still darker, until the hands, feet, lips, neck, and face were almost black. The mother watched all this, and now she and friends gave up all hope, and the mother was in the agonies of one bereft of her child and her hope. This change of color was our encouragement, for it gave us the evidence that the child had not been *long* dead at least. True, the encouragement was but faint, for the change of color, besides the above, only gave evidence of the continuance of a *chemical* change. The oxygen was being exhausted, and the arterial blood converted into venous. When the very dark color was reached, a new discouragement was upon us, for it showed that the oxygen was nearly or quite exhausted, and if we were not quite too late, there was at least but a few moments left to us. Those moments we presumed upon, and tried to improve to the best advantage. Soon a faint gasp brought to our eyes tears of joy, and in less than half an hour we had the satisfaction of handing over to the nurse a living, breathing, *crying* baby.

Such results are not novelties in the hands of good physicians—the idea we would urge is, that, had the child been put in a warm bath, it is more than probable the result would have been different. In the experiments of Sir Astley Cooper, a puppy immersed in warm water died in less than *twelve* minutes; another, of the same age, immersed in cold water, lived *thirty-four* minutes. In the case we have given above, the child was virtually immersed in a cold bath, and yet the color of the skin, before the first respiratory effort was made, showed that the oxygen of the blood was nearly or quite exhausted; a few seconds more, without a respiratory gasp, and death would have been complete. Had the warm bath been used, this condition of deoxygenation would have occurred two-thirds sooner, or in one-third the time, and before the elapse of the remaining time, death would have been complete, and the child beyond all human powers of restoration.

BLOODLETTING IN PNEUMONIA.

In regard to the propriety and utility of bloodletting in inflammations in general, and in pneumonia in particular, there is a great diversity of opinions held by different members of the profession. There are, *first*, those who believe that bloodletting is judicious in nearly all cases of inflammation, not actually of a decided typhoid type. They believe that disease has not changed its type, and that bloodletting is as much demanded now as at any former time. They are willing to admit that bloodletting may have been formerly too much employed, but, at the same time, they are confident it is now by far *too little* used as a therapeutic measure.

There are, *second*, those who believe that the fathers in the profession were right—that free and repeated bleedings were actually demanded to subdue inflammation, but that now, because of a change of the type of diseased action, bloodletting is seldom or never necessary. In their opinions physicians were right fifty years ago, and are right now upon this subject. There is a *third* class, who believe that bloodletting is seldom necessary now; they believe that diseased action is the same now that it was fifty years ago, and that the free and repeated bloodlettings then employed were uncalled for and injurious, as well as based upon incorrect observations and false notions of pathology.

It is interesting to listen to the teachings of those who, for the last fifty years, have closely observed the condition and tendency of diseased action. Before the Berkshire Medical Society, as per report in the April number of the *Berkshire Medical Journal*, the learned and venerable Dr. Alexander H. Stevens made a few remarks upon the treatment of pneumonia, and the change of type in diseased action. Dr. Stevens belongs to the second class of physicians as given above; he believes that the type of disease is materially changed. Formerly he was in the habit of bleeding, and, he thinks, with benefit, in diseases that now do not tolerate bloodletting at all. In regard to the time of change, we make the following extracts: "I am, and ever have been, of spare habit of body; my weight is about 130 pounds, and was about that in the winter of 1814, when I had an attack of pneumonia. I lost about *sixty ounces* of blood, and felt that each of the three bleedings I underwent did me good. In the year 1815 I had charge of a military hospital, in which were received twenty or more cases of pneumonia. In these cases the serum of the blood was tinged with bile. The disease was new, and afterwards called bilious pneumonia, was well described by Dr. Gallup. It would not bear more than one bleeding. This was the first I saw of the change which has been gradually taking place since that time from a

sthenic to an asthenic disease. I no longer, or very rarely find, at the present time, the indications for bleeding as laid down by John Hunter and other observers." Formerly, he says, they were present in nearly all acute diseases.

In regard to the treatment of pneumonia, we stand committed to the opinion that bloodletting is seldom or never necessary. We have not bled a case of pneumonia in the last eight years, nor seen occasion to regret the omission. For nearly four years past, we have not only omitted bleeding, but we have placed nearly all our cases of inflammation of the lungs at once upon quinine and opium. To those who are in the habit of relying, in such cases, upon the lancet, antimony, calomel, etc., this will, doubtless, seem hazardous treatment; but, in the four years, we have not lost a patient with pneumonia, under seventy years of age, and we have seen several recoveries in persons considerably older, as well as in very young children—cases that, under our former methods of treatment, we think, would have died.

Ten or twelve years ago, under bloodletting, antimonials, calomels, etc., our patients were seldom discharged before the end of the third week, and often not until the fourth. Now, it is an exception if he is not discharged by the tenth day. Usually, under from three to five grains of quinine, with five of Dover's powders, with the addition of a little morphine, so as to bring the dose of the opiate up to an equivalent to from one to two grains, repeated every three or four hours, the pulse will come down from 110, 120, or 130, to 80 or 90, in the first twenty-four hours; the cough will become less frequent and less tight, and the patient will break out in a profuse sweat. Formerly, we were in the habit of using small doses of antimony and Dover's powders, until the skin became a little moist before using the quinine. Now, we thiuk there is no surer or quicker way to get a cool and moist skin than to give quinine and opium in combination, as above, and repeat at rather frequent intervals. This spring we treated quite a number of cases thus, with such uniform results that we often surprised the friends by predicting the exact daily decrease of the pulse, the day of commencing convalescence, and the probable day of discharge. During last winter, we treated a very severe case of double pneumonia, and another in May last. Both recovered. When the symptoms were alarming, and death seemed imminent, the influence of the remedies was positive. In these cases, the chlorate of potash and veratrum viride were additions to the medicines alluded to above.

In the winter of 1857 and '58, we commenced treating pneumonia with quinine, etc., omitting bleeding. We were not aware that such treatment had been employed or advised, except in cases of malarial or typhoid pneumonia. Dr. Cartwright, of New Orleans, claims to have been the first to recommend quinine in pneumonia, which he says he did in the *Medical Recorder* for April, 1826. Dr. W. T. Howard, of North Carolina, in an able paper upon *malarial pneumonia*, denies this claim, and avers that the quinine treatment was practiced in some instances, both at home and abroad, anterior to that time. Dr. T. J. Cogley, of Madison, Ind., in 1857, recommended the use of quinine and capsicum in pneumonia. Several others have done the same, in papers, which we have not the time now to hunt up and specify. We have carefully examined all the papers within our reach bearing upon this point, published anterior to 1858, and, if we rightly remember, in all cases where quinine has been recommended in pneumonia, the cases have been regarded as *typhoid* or *malarial*.

We have just been making an observation which, we think, has a bearing upon the idea under consideration. We saw a case last night of diphtheria, in a patient aged about thirty-five years, a man, and a hard laborer. The patient had been sick about a week; there was considerable fever present, pain in the head, etc. The throat presented the pecular appearance of diphtheria; the tongue was heavily coated, and as black as charcoal, and the pulse at 100. Twelve miles from our residence, we were urged to stay with the patient over night, who was greatly alarmed, and did so. We gave three grains of quinine, and one-sixth of a grain of morphine, and repeated every three hours during the night; also, a tablesponful of a saturated solution of the chlorate of potash every three hours. This morning the pulse was at 80, and the patient said he had *sweat profusely* all night. We ordered the medicines to be given at intervals of four hours, instead of three, with the addition of fresh meat, broths, and egg-nogg. We shall expect the patient to be fairly convalescent in three days. This case, and we might cite hundreds similar, goes to show that quinine is a sedative of no mean importance.

QUININE AS A PARTURIFACIENT.

The *Cincinnati Lancet and Observer* for July, contains the proceedings of the Union Medical Society, at Knightstown, Ind. Dr. Cochran reported an obstetrical case, in which the patient was exhausted, and the pains had ceased for some time. He gave ten grains of quinine at one dose, which was speedily followed by strong pains and the birth of the child. It should be observed that the parturient properties of quinine have several times been under discussion previously before this society. We abstract an opinion or two of other members elicited in the discussion. Dr. Canada said, "It could not always be relied on; but he viewed it as the most reliable parturient remedy we have." Dr. Cronse thought that "when quinine was given in proper doses, it rarely disappoints."

On a former occasion, Dr. John Lewis said, "When I find a patient in labor, with a rigid os uteri, a tense pulse, and dry skin, I always give quinine freely, use dry cups over the sacrum, and the warm foot-bath, and expect the os uteri to relax, the pulse and skin to soften, the uterine contractions to increase in frequency and force, as surely and as certainly as I would nausea to follow the exhibition of ipecacuanha, or purging from jalap."

Bearing upon this subject, we may mention that Dr. J. S. Rich, of Georgia, in the *Charleston Medical Journal and Review* for March 1860, reports several cases of uterine hemorrhage of alarming character that were speedily relieved by the use of quinine, after the failure of all other known means. Prof. Edward Warren, now of Baltimore, says "we have found nothing more likely to produce abortion in pregnancy than the administration of large doses of quinine." Several others have ascribed to it abortive powers, when administered in full doses. It is quite possible that it may be found to be a valuable parturient remedy, though in any ordinary doses we do not believe, as an abortive agent, it is at all to be feared.

RENNET-WHEY AS AN ARTICLE OF INFANTILE ALIMENTATION.

In the *Lancet and Observer* for July, Dr. C. A. Logan has an article upon the above subject. After some remarks upon artificial feeding, he says: — "For infants within three months, who have unfortunately been deprived of their natural aliment, and especially for those whose stomach and bowels have become so irritable from the unnatural cramming of improper food, that they can digest nothing, however simple, I have found the *rennet-whey* to be a most satisfactory food, being easily assimilated, meeting the requirements of the system, and allowing the impaired or lost digestive tone to be restored to a normal condition. The method of preparation is, to heat perfectly pure and sweet milk to a temperature of 120°, and to each pint, drop in a piece of rennet about the size of a pea. When coagulation of the casein ensues, strain through a coarse cloth, sweeten well, and it is ready for use." Young children, as well as young calves, will, we think, flourish better on pure milk, diluted, if need be, than on whey.

We grant there may be conditions of disease in which the whey might be appropriate; but, as a common article of diet, we are hardly prepared to believe that it is better than milk. It is well known to dairymen that rennet separates not only the casein, but the butter, and we cannot see how milk robbed of its butter and cheese can be very nutritious. In cities, where pure milk is not always easy to be got, and where the injuries arising from artificial feeding are at their maximum, it may be interesting to know that some physicians even consider whey better, as an article of diet, for young children.

TREATMENT OF EPILEPSY.

In the *Lancet and Observer* for July, Dr. R. E. Haughton, of Richmond, Ind., has an interesting article upon epilepsy. We quote a remark or two in regard to treatment. Of the various narcotics used, he says he has "derived no benefit from any save stramonium. Chloroform, he thinks, is quite equal to any of them. Nitrate of silver and sulphate of zinc have been worthless in his hands. The hydrocyanate of iron, while it has strengthened the constitution, has not accomplished in his hands what Prof. McGugin's papers upon this subject had led him to expect. The tincture of veratrum viride did much good in one case, by controlling the circulation, and thereby quieting the nervous excitability." In conclusion of the subject of treatment he says, "One thing I have to suggest in the treatment of this disease, and it is the use of strychnia, or some of its preparations. I used it in one case with apparent benefit, but not sufficiently long to effect paramount good. As there is, without doubt, an excessive irritability of the nervous system and brain, and the result of this excitability being debility, this remedy appears to me to be quite well adapted to the treatment of many cases of this disease, particularly of those in which no organic changes are detected as going on in the brain. It is particularly a tonic to the nervous system, and through it must act upon all the functions of the system. Conjoined with it may be given other tonics, which are known to be of benefit."

We have had but very limited experience in the treatment of epilepsy, and yet, on theoretical grounds, strychnine has suggested itself to us as an important remedy in this disease, and we have, on several occasions, suggested the remedy to our medical friends, as one worthy of a thorough trial. We hope it may be put to the test thoroughly. We shall hope much from it. There is another remedy that we would suggest, and that is the syrup of the hypophosphites. As a brain and nerve tonic, we think this remedy will be found valuable.

THE MEDICAL AND SURGICAL REPORTER.

S. W. BUTLER, M. D. } Editors and Prop's.
R. J. LEVIS, M. D. }
L. C. Butler, M. D., Assistant Editor.

PHILADELPHIA, SATURDAY, JULY 27, 1861.

PROFESSIONAL HOBBIES.

Whether all professional men have their hobbies or not, we neither know, nor is it important for us now to inquire. Individual instances there are enough to answer all the purposes we have in view.

Rev. Mr. Trueman, a pious, godly man, is a thorough bred Calvinist, and such is his desire to save his own flock from wrecking their faith on the fatal shoals of Arminianism, that this great fundamental doctrine of the Bible, as he terms it, is the burden of his thoughts, his prayers, and his sermons; while his neighbor, Mr. Zeal, no less godly or zealous, abhors Calvinism, and as assiduously doses his parishioners with Arminianism. Mr. Worldly Wise treats his hearers to a religio-political hash on each successive Sabbath, while Mr. Wet Eyes directs the sympathy and attention of his flock to the wrongs, and sufferings, and woes of the poor down-trodden slave. Now, all these are various phases of clerical life, so to speak, which may be, and doubtless are, the offspring of principle in the minds of those who entertain them, but they are nevertheless hobbies, sanctified, it may be, by the sacredness of their subjects, but yet hobbies which the owners may ride too far and too long.

Clergymen, then, have their hobbies. Lawyers may have theirs, for aught we know. Politicians certainly have their hobbies, and ride them too most successfully, often reaching the goal of their ambition astride of the "tariff," "abolitionism," or the "negro" himself. So, also, physicians have their hobbies, not so conspicuous in the "public eye" indeed, as are those of either of the other classes mentioned, but still rightly denominated hobbies.

As each successive spring returns to open its budget of green herb and flower, to deck the winter-wasted fields, and to bring again the warm and invigorating breeze to fan the fair face of revived nature, Dr. Sanguinoso performs the circuit of his large professional parish,—humanity beaming from his countenance,—to tap the veins of those who enjoy at once his confidence and science, as a sovereign preventive against the aches and fevers that lurk in the miasma around them. Concealed within the substance of every organ of the body; hiding itself in the bony walls which encase the brain; disguising itself under the garb of debility, Dr. Sanguinoso sees inflammation rearing its hydra-head in every direction. To cool the feverish brow, to quench at once the latent fire that threatens to burn the system up, or yet to raise the patient up from the bed of death, no remedy so potent, none so important as the abstraction of blood. Whatever form of disease may invade the human system, *prima facie* the cause of it is an excess of the vital fluid in the part affected, *ergo* venesection is the sovereign remedy. Be ye bled and live, refuse and die. The lancet is Dr. Sanguinoso's hobby.

Dr. Spinoso on the other hand regards the nervous system as especially the seat of disease. Those little filaments, he will tell you, the telegraphic wires that connect the brain and spinal marrow with the outer world, so sensitive that the least touch of the extremest point sends a thrill through the whole man; this delicate network, that spreads itself all over the human body, sending out its tiny fibrils to all the outposts of nature, as sentinels, never sleeping, but ever on the watch to guard against approaching danger, these are the seats of disease in the system. The excited outpost carries along its track the seeds of discord and anarchy to the great nervous centres, the brain and spinal marrow, and back again to its own, and perhaps the locality of its fellow, the news of distress within. Hence mustards and cataplasms, sacrificators, cupping glasses and blisters, veratrum, assafœtida and valerian, are the hobbies on which Dr. Spinoso rides into professional life.

But to Dr. Billioso the idea that the nervous system is the head and front of offence in the system is not only absurd and ridiculous, but exceedingly unphilosophical. Healthy digestion, he will tell you, results in the entire health of the system. But digestion cannot be properly performed without bile in appropriate quantity and quali-

ty. This we cannot have without a healthy condition of the liver and biliary organs. Hence if they are diseased the whole system must of necessity suffer, *vice versa;* and if there be disease in the system it must result from an affection of the liver. Hence, Dr. Billioso finds none but "bilious" affections in his practice, and his opinion is, that if physicians would attend more to the liver and less to the nerves, they would not only find less neuralgia among their patients, but have far better success in their practice. And hence, too, whether there be endemics or epidemics, fevers or inflammations, sporadics or contagions, no matter, the color of his eye-balls tells the story of his invariable diagnosis, and the size of his saddle-bags bespeaks his inevitable prescription.

But, perhaps, these instances are sufficient to show that medical men have their hobbies, and ride them too. A favorite theory of disease, says Dr. Viroso, a long practiced method of treatment—a theory which, established in our younger years has become part and parcel of our manhood and age, a theory which we claim to have been the result of close study and minute investigation for years of our lives, is not easily upturned by the thousand and one "upstarts" of mushroon growth, that bob their brainless heads in the face of *age* and *experience.* Age and experience, and careful investigation, are not to be thus easily booted off the track. Time hallowed theories are not to be exploded thus easily by the half fledged sycophants that hang upon the skirts of the great science of medicine. Medicine is the same yesterday, to-day and forever. It changes not as you take off and put on your daily dress. It has its phases, but not its changes. Men cavil at its principles, assault its citadel, and fancy they have destroyed the old temple and built a new one in its place, but they have daubed with untempered mortar, which will quickly fall away, they have planted a terrace, or set a cornice which will crumble into dust, and only make more conspicuous and beautiful the glorious, complete old temple of Hippocrates, Esculapius and Galen. But my good friend Dr. Viroso, did this grand old Temple which you, only in common with all the votaries of the healing art admire and revere, spring in full-orbed perfection from the hands of the venerable Father of Medicine, as did Minerva from the brain of Father Jupiter. Did he not rather lay its deep foundations; draw, as with the practiced eye of an experienced architect, the fullness of all its elegant proportions; carry up its walls even to the full height of the crowning cap-stone, and then leave the work to be completed in cornice, in architrave, in dome, and in adornment without and within, to those who succeeded him in his labors. So we think, and while we join with you in deprecating any attempt to mar the fair proportions of our venerable temple, we ask you to join with us in commending the energy and industry of the medical Praxiteles who adorns its columns, its porches, and its altars, with the evidences of superior workmanship and skill. Let our temple be adorned with all the skill of the past, the present, and the future. If an unsightly excrescence, like the hobby of Dr. Billioso, or Dr. Spinoso, or Dr. Sanguinoso appears, let the keen edge of the skilful architect pare it away to its just proportions; not destroy it, by no means, but leave it to occupy only its appropriate place in the great temple of medical science. He who will may ride his hobby, and he may fancy his antiquated, exploded, or modern notions to be the *summum bonum* of the medical profession, or the sum and essence of medical science, but yet the crucible of truth will test his merits, turn his hobby topsy turvy perhaps, or appropriate its bones more likely to the adornment of the Temple.

Correspondence.

Morris, Ill., July 15, 1861.

Messrs. Editors:—In the Reporter for July 6th, you call attention to "gelsemin," and ask for the preparation and dose.

I have had no experience with gelsemin, but have used, for the last four years, the saturated tincture, prepared by macerating four ounces of the root of the yellow jesamine (gelseminum sempervivens) in a pint of diluted alcohol.

I have used it in acute gonorrhœa, gleet, spermatorrhea, and leuchorrhea, with decided benefit. It may be combined with any of the ordinary remedies, in doses of twenty or twenty-five drops, four times a day.

A pretty full and reliable description of the remedy and its properties may be found in King's *American Dispensatory*. It has been, for many years, constantly and successfully used by the eclectics.

In all the fevers incident to this climate, I consider it invaluable. In bilious fevers, I give it, in doses of from ten to twenty drops, every one or two hours, according to the urgency of the case, or just enough to keep up the peculiar effects of the medicine, which are first manifested by indistinct vision and drooping of the eyelids, and combine it with quinine and cimicifuga during the remission. This course will break up uncomplicated cases of intermittent and remittent fever in one or two days.

On the 26th of last month, I took charge of a patient from the camp at Cairo who had been suffering with typhoid fever for three weeks, with restlessness, slight delirium, hemorrhage from the bowels, etc. I prescribed—

℞.—Quinia sulph., - - gr. xx.
Acid sulph. arom., - ℥ ss.
Tinct. gelsemin., - - ss.
Tinct. cimicifuga, - - ℥ i. M.

Of this, twenty drops were given every hour in half a wine-glass of lemonade. On the next day, the nervous excitability was diminished, and a free perspiration established. This treatment, with injections of cold water and frequent application of the towel-bath, was continued, gradually lengthening the interval between the doses for five days, when the fever and all the grave symptoms had disappeared.

Last year, a severe case of sciatica, of long standing, and which had resisted various other methods of treatment, yielded to tinct. gelseminum and tinct. cimicifuga, in equal parts, and given in half-drachm doses once in three hours.

I have found it useful in dysentery, checking the hemorrhage and quieting the pain more effectually than opium.

I use it in convulsions of infants and adults, in hysteria, dysmenorrhœa, and whenever it is desired to relax the muscular system without producing nausea, and to overcome irregular nervous action.

JOHN N. FREEMAN.

NEWS AND MISCELLANY.

Dr. A. S. Oberly, of New Haven, Connecticut, has received an appointment in the United States Navy.

We observe that the following surgeons and nurses of this city have volunteered their services, and already left for the seat of war, to attend upon the siuk and wounded: Drs. Jas. Heritage, T. S. Reed, John Gegan, Jr., John Sterling, D. Jameson, Jr., and William P. Henry. Mr. and Mrs. Savery.

Surgeons B. Buckstone, A. Allen, and A. A. C. Williams, who volunteered to go with the Fire Zouaves in the late battle at Manasses Junction, were taken prisoners.

The Bulletin, imitating its neighbor of the *Inquirer*, copies portions of our article on "City Hygiene" without giving due credit therefor.

To Correspondents.

☞ **We cannot too strongly urge all our correspondents to write plainly, if they expect their manuscript to be printed correctly. Cross all your *t*'s, dot all your *i*'s; be specially careful in writing all technical terms. If you are in doubt about the word yourself, don't leave the printer or editor to decide for you, but go to the dictionary. Look out for words that appear nearly alike when written as *then* and *there*, *when* and *where*; be sure and make an *s* at the termination of a word when you want it there, not a mark or quirl merely to show your own doubt about it. In fine, prepare your manuscript for the press; place every word in just the position you desire to see it in type; make every sentence complete before you send it to the Editor; don't ask him to do what you can do better yourself.**

Errata.—Despite our diligent attempts to prevent it, several vexatious typographical errors occur in the last article of Dr. Garretson, July 20. On page 347, first column, second sentence, first line, read "their" in place of "this;" second column, last line, read "there" instead of "then;" fifteenth line from top, read "have" instead of "are." On page 348, twenty-sixth line from top, read "well" instead of "will." Page 349, fourteenth line from bottom, first column, read "character" instead of "history;" twentieth line insert "his" between "that" and "tumors;" second column, ninth line from top, read "fortunately" instead of "unfortunately;" last line, same column, read "alveolus" instead of "alveolar." Page 350, third line from bottom, read "alveolus" instead of "alveolar."

Communications Received.

Connecticut—Dr. W. C. Bell, Dr. Elijah Dyer, Dr. W. W. Clapp, Dr. H. L. Burpee, Dr. A. S. Oberly, Dr. B. H. Catlin, Dr. George E. Palmer, Dr. S. L. Chase, with encl. *Delaware*—Drs Jump & Jones. *Illinois*—Dr. J. N. Freeman. *Maryland*—Dr. D. W. Maul. *Massachusetts*—Dr. B. H. Hubbard, Dr. Wm. E. Rice, Dr. Marshall Calkins, Dr. B. F. Wilson, Dr. W. W. Comstock, Dr. E. N. Jones, Dr Wm. O. Johnson, Dr. P. L. Nichols, Dr. S. F. Parker; Dr E. Somerby, with encl.; Dr. Abr. Thompson, with encl. Dr. Geo. Hutchings, with encl.; Dr. A. Proctor, with encl.; Dr. W. Bushnell, with encl.; Dr. David Thayer, with encl.; Dr. Geo. W. Dennit, with encl.; Dr. R. Goodale, with encl.; Dr. C. Edwin Miles, with encl.; Dr. Ward E. Knight, with encl.; Dr. E. Jarvis, with encl.; Dr. C. R. M. Steadman, with encl.; Dr. C. Wesselhoeft, with encl.; Dr. Benj. Cushing, with encl.; Dr. Jonathan Ware, with encl.; Dr. C. C. Holmes, with encl.; Dr. J. H. Warren, with encl.; Dr. Nathaniel Green, with encl.; Dr. S. E. Francis, with encl.; Dr. D. Youngman, with encl; Dr. Geo. Heaton, with encl.; Dr. E. S. Warren, with encl.; Dr. J. H. Gilbert, with encl.; Dr. N. G. Tirrell, with encl.; Dr. F. Foster, with encl.; Dr. E. Stephenson, with encl.; Dr. J. E. Horton, with encl.; Dr. J. R. Morse, with encl.; Dr. E. S. Willard, with encl.; Dr. W. E. Rice, with encl.; Dr. R. Proben, with encl.; Dr. S. Richardson, with encl.: Dr. D. T. Huckins, with encl.; Dr. A. Hosmer, with encl.; Dr. Wm. F. Tewton, with encl.; Dr. Saml. Warner, with encl.; Dr. F. W. Palmer, with encl.; Dr. E. Worcester, with encl; Dr. J. W. Willis, with encl.; Dr. Josiah Brown, with encl.; Dr. B. F. Green, with encl.; Dr. I. T. Braman, with encl.; Dr. C. L. Spencer, Drs. Hooker & Macomber, Dr. W. H. Channing. *Michigan*—Dr. L. D. Tompkins. *New Jersey*—Dr. Thos. J. Yarrow, with encl.; Dr. E. P. Nichols. *New York*—Dr. Geo. T. Elliott, Dr. Springstead, Dr. G. D. Crispell, Dr. Geo. Ellis, Dr. O. C. Gibbs, Dr. Louis Bauer, (with adv. and com.) *Ohio*—Dr. Edward B. Stevens, Dr. D. R. Kinsell, with encl.; Dr. A. H. Stevens, Dr. H. P. Wilson, Drs Pearce & Smith, Dr. E. Spooner, Dr. W. R. Bricker. with encl.; Dr. B. F. Barr. *Pennsylvania*—Dr. H. P. Dutcher. Dr. G. F. Hoop, Dr. F. Ridgeley, Dr. J. M. Stevenson, with encl; Dr. S. H. Shutts, Dr. John W. Eldred, Dr. Lewis Van Sickle, with encl.; Dr. Alfred Brace, Dr. Samuel Pollock. *Rhode Island*—Dr. John De Wolf, Dr. Samuel Carpenter, Dr. H. King, Dr. S. F. Stone. *Tennessee*—Dr. Thomas M. Woodson. *Vermont*—Dr. S. R. Day, with encl.

Office Payments—Dr. L. R. Kirk, Dr. Markley. Per Swaine: Drs. Egbert, Parker, Witting, Elliott, Poor, Winterbottom Heaney, Thompson, Reed.